2017-07-10

Enablers and barriers to developing competencies in a blended learning programme for specialist teachers in New Zealand

Hornby, Garry

10.1080/00131911.2017.1345860
Educational Review
Informa UK Limited

Enablers and barriers to developing competencies in a blended learning programme for specialist teachers in New Zealand

Marcia Pilgrim, Garry Hornby and Sonja Macfarlane

This is an Accepted Manuscript of an article published by Taylor & Francis in Educational Review on [10 July 2017], available online: http://www.tandfonline.com/ DOI: 10.1080/00131911.2017.1345860

Keywords: teacher education, competency based training, online learning, blended learning, specialist teachers.

Abstract

The views of recent graduates of a blended learning programme for specialist teachers of children with learning and behavior difficulties in New Zealand were investigated. Six focus group interviews examined factors that participants considered enabled them to develop programme competencies as well as those that acted as barriers to competency development. Results indicated that a range of factors had acted as barriers to or enablers of competency development. These focused on five

overarching themes related to: course content, relevance, clarity and structure; support networks; managing time and stress; pre-requisite knowledge, skills, and experience; and, access to technology. The implications of these factors for the further development of blended learning programmes are identified.

Training teachers for working with students with special educational needs and disabilities (SEND) is internationally regarded as an important and challenging endeavour. With many teachers reporting not feeling well prepared for working with children with SEND, the effectiveness of teacher training programmes is an important focus for teacher educators (Smith and Tyler 2011). To this end, studies seeking the views of specialist teachers about the training programmes they have completed have an important role to play in shedding light on how such programmes might be improved (Conderman et al. 2013; Lombardi and Hunka 2001). With teacher educators under pressure to effectively train more teachers of students with SEND as well as to increase quality and lower costs, more emphasis is being placed on utilizing e-learning to achieve these aims (Garrison 2011).

E-learning is defined as, " …electronically mediated asynchronous and synchronous communication for the purpose of constructing and confirming knowledge" (Garrison 2011, 2). The two primary forms of e-learning are online learning and blended learning. The study reported in this article aims to contribute knowledge about how training for specialist teachers might be improved by examining factors that could act as enablers of or barriers to competency development within the context of a blended learning programme.

Results of various studies suggest that online professional training for specialist teachers can result in successful outcomes. For example, a study of professional development for teachers of students with autistic spectrum disorders found that an online learning programme was effective in helping teachers to improve the knowledge, competencies and skills needed to work with students with ASD and their families (Rakap, Jones, and Emery 2014). In another study, Thompson, Klass, and Fulk (2012) compared the use of face-to-face and online learning in the delivery of an introductory special education course for students enrolled in a large teacher education programme. Instruction was delivered either via predominately face-to-face or mainly online methods. Student satisfaction, achievement and engagement were

investigated in both conditions with results suggesting similar outcomes for both approaches.

With face-to-face and online approaches affording different benefits, institutions are focusing on selecting approaches best suited to the needs of students, thereby creating environments that maximize those benefits in order to ensure optimum conditions for learning. In seeking such optimum conditions, attention in higher education has focused on investigating the potential of blended learning programmes (Garrison 2011; Merriam and Bierema 2014; Vaughn 2011). Blended learning is defined by Garrison and Vaughn (2008, 148) as, "the organic integration of thoughtfully selected and complementary face-to-face and online approaches and technologies."

It is recognized that the asynchronous nature of online communication offers many advantages (Merriam and Bierema 2014). Unlike face-to-face communication in which the speakers all need to be present at the same time and to take turns contributing, asynchronous communication is flexible and not bound by time and space. This makes it ideal for busy learners who have multiple commitments and who may be geographically isolated (Fishman, Konstantopoulos, Kubitskey, Vath, Park, Johnson, and Edelson 2013). In fact, Merriam and Bierema (2014) note that, within the USA, online learners are comprised mainly of non-traditional adult learners for whom convenience and flexibility are important.

Asynchronous text-based communication may also provide increased opportunities for interaction, feedback and deep learning while allowing learners greater flexibility to work at their own pace, for example, enabling them to spend more time on areas of individual interest or need (Fishman et al. 2013; Haythornthwaithe and Andrews 2011; Vaughn 2007; Vernon-Dotson, Floyd, Dukes, and Darling 2014).

It is widely acknowledged that learning is complex and, according to Vygotsky's social constructivist perspective, is facilitated when people interact with each other. Conditions that allow learners to engage in learning communities, therefore, promote effective learning and development (Lave and Wenger 1991; Liu, Carr and Stobel 2009; Merriam and Bierema 2014). A significant advantage offered by e-learning platforms is the focus on opportunities for collaboration within online communities. Dixon (2010) stresses that one of the primary factors in effective online teaching, is student engagement.

Alongside exploiting the potential advantages of the online component of a blended learning programme, it is important to recognize and optimise the advantages of its face-to-face component (Garrison 2011). For example, interpersonal connections, important in helping to support group cohesion and sustain learning communities, may be more easily established in face-to-face situations. In addition, face-to-face environments may be preferable for initiating discussions, whereas online engagement may better support the expansion and sustained discussion of initial ideas.

In providing a framework for improving teaching in higher education and capitalizing on the transformative power of blended learning, Vaughn, Cleveland-Innes, and Garrison (2013) are concerned with the need for online learning communities in higher education to become vibrant communities of inquiry. In such a setting personal learning and effective engagement and collaboration can be maximized to support successful outcomes.

Since the Specialist Teaching Programme, which is the focus of this study, was concerned with adult learners, a key premise underpinning instructional practices was the importance of encouraging self-directed learning in the facilitation of competency development. Self-direction is considered to be an instructional process in which students take the initiative at various stages of the learning transaction, from identifying learning needs and setting goals, to gathering information and evaluating learning, and is therefore considered an important element of adult learning (Laurillard 2002; Knowles, Holton, and Swanson 2015). It is recommended that, not only should students be encouraged to assume increasing responsibility for managing goals, materials and learning strategies, but also for managing critical reflection and collaborative processes in the interest of achieving deep learning (Brockett and Hiemstra 1991; Garrison 1997; Merriam and Bierema 2014).

Although self-directed learning is considered important in adult learning, for many adults addressing the transition back into a formal education, this approach can be challenging. This may be particularly true for adults returning to a student role after many years away from formal education. It is therefore important to recognize that not all adult learners are at the same stage of readiness for self-direction (Brocket and Hiemstra 1991; Knowles et al. 2015; Rogers 1996; Tomei 2010). Further, it may sometimes be in the best interest of learners to relinquish some control of the learning process, for example, in areas where the learner has a particular lack of knowledge.

Therefore, students' capacity to be self-directed must always be taken into account and the learning process must be an ongoing balance between responsibility and control.

In placing emphasis on practices such as self-directed learning and encouraging active participation in the online learning community, the Specialist Teaching Programme sought to create an environment that optimized a blended-learning approach in supporting teachers to develop a range of competencies critical to their work in the field of special education. The programme is outlined below and described in more detail in Author One et al. (2016).

Specialist Teaching Programme

The Specialist Teaching Programme aimed to enable specialist teachers of students with learning and behaviour difficulties to develop the competencies needed to work effectively with teachers, schools and students as agents of change, thereby improving outcomes for learners. It was delivered over a period of two years part-time study with participants required to attend two one-week face-to-face block course sessions per year, as well as to participate in online learning over the course of the two years. Participants were practicing teachers who typically had one study day per week to work on the programme.

The programme comprised the following four courses: Theory and Foundations of Learning and Behaviour Diversity; Core Theory and Foundations of Specialist Teaching; Evidence-Based Inter-professional Practice; and, Practicum for Learning and Behaviour. Overall, 51 competencies were included in the four courses of the programme. These can be grouped into five overall themed areas: assessment and intervention; collaboration and consultation; cultural responsiveness; professional and ethical practice, legislation, policy and curriculum documents; and professional development, child development and learning issues. (For further details see Author One 2016 or Author One et al. 2016).

The advantages of seeking the views of teachers about their preparation programmes in order to shed light on how programmes might be improved are highlighted in the literature and was the motivation for this study (Conderman et al. 2013; Heller et al. 1999; Lombardi and Hunka 2001). The aim of the overall research project, from which this article is drawn, was to investigate the perceptions of students who recently graduated about the importance of the competencies addressed

in the programme to their professional work, and the extent to which they considered they had been enabled to develop those competencies, as well as to identify factors that acted as barriers or enablers to their learning within the programme. The project included a questionnaire survey and six focus group interviews. Findings from the questionnaire survey (reported in Author One et al. 2016) indicated that, in all four courses of the programme, participants considered competencies addressed to have been of high importance to their professional work, and also considered that they had been well enabled to develop these programme competencies.

The focus of this article is to examine findings from the six focus group interviews that were aimed at examining the perceptions of participants regarding the factors that acted as barriers to, or enablers of, their competency development.

METHOD

Participants

Of the 81 ex-students who successfully completed the programme, 42 graduates participated in the overall study. This represented a response rate of 52%. Most participants were 40 years of age or older with none being 29 years of age or younger and two being older than 60. All participants had experience of teaching students with learning and behavioral difficulties with 20 having from one to nine years, and 22 having 10 or more years experience. At the time of completion of the survey, all participants worked within the primary school sector, with 26 also working in secondary schools and two working in special schools or special units in mainstream schools.

Procedure

The overall study utilized a mixed-method sequential design comprising a three-part online questionnaire survey followed by six focus group interviews. Part one of the survey comprised ten demographic questions. Part two comprised 51 closed questions and four open-ended questions relevant to the 51 programme competencies. The main focus of this section was to collect quantitative data on the importance of programme competencies and the extent to which participants considered that they were enabled to develop them. The third part of the survey comprised three open-ended questions aimed at collecting data on enablers and barriers to competency development.

Drawing on a preliminary analysis of the questionnaire survey data, participants were selected to take part in six semi-structured focus group interviews.

These participants were selected in order to reflect the greatest possible range of views, as gauged by their questionnaire survey responses. Groups were also selected to include participants who demonstrated differing levels of online programme engagement, and care was taken to ensure that the voices of both Māori and non-Māori participants could be captured. Consideration in selection also had to be given to more practical matters, such as the distance and costs of participant travel to interview settings. Focus group interviews took place between eight to 11 months after the participants completed the programme.

Of the six focus group interviews, four comprised three participants while two groups comprised just two participants. It was considered that small groups were appropriate for the purposes of this study since all participants had a high level of involvement with and interest in the topic and small groups would allow each participant more time to discuss their views. In total, 16 of the 42 participants who completed the survey questionnaire took part in the focus group interviews.

In line with suggestions from Krueger and Casey (2009), two people conducted the focus group interviews, with both taking on the role of moderators rather than what is often a more directive role of the interviewer within the context of the individual interview. The first moderator was the primary researcher and was a tutor on the programme, while the second moderator was one of the course co-ordinators and an experienced researcher. Both were therefore very familiar with the programme and the participants and both took part in all six focus groups.

Prior to the focus groups the two moderators reviewed the aims of the interviews and agreed the procedures in order to ensure that they were standardized across all six focus group interviews. Procedures included the delivery by email of pre-interview information, the use of pre-interview discussion ‘warm-up’ questions and the generation of prompts to be used as necessary during the course of the interviews (Morgan 1997).

The pre-interview warm-up was used to make it clear to participants that the purpose of the study was to improve the programme. As had been indicated to them by email, a pre-interview discussion took place related to documents sent out prior to the interview. These documents comprised a list of programme competencies and an outline of the order in which competencies were addressed in the programme. Participants were asked to respond briefly to two discussion ‘warm-up’ questions: (a) whether there were any topics that they would like to see added or deleted from the

list of topics covered on the programme; and (b) whether they considered the order in which topics were addressed in the programme to be the most appropriate. It was considered important to have this discussion as a reminder of programme details because of the time lapse between when the participants had completed the programme and when interviews were conducted.

Once the pre-interview discussion was brought to a close, the primary moderator asked two broad questions. The first question was about what enabled participants to develop programme competencies and the second question was about factors that acted as barriers to competency development. The two moderators engaged in active listening, summarizing and reflecting back to participants what was said in order to confirm and clarify meaning, in addition to probing more deeply where necessary (Cohen, Manion, and Morrison 2011).

Focus Group Interview Data Analysis

In line with the literature, a systematic approach to data analysis was adopted following a prescribed process (Krueger and Casey 2009). This analysis was conducted directly from video-taped recordings of the six focus group interviews, rather than the mediated sources of a transcription, in order to avoid researchers getting caught up in irrelevant detail and losing sight of the bigger picture (Cohen et al. 2011). Perakyla and Ruusuvuori (2011) note that analyzing recorded interviews directly from video tapes has the advantage over analyzing transcripts that the researcher is in more direct touch with what is being investigated.

The analysis used in this study incorporated guidance provided in Hyatt's (1986) four-stage procedure that comprises familiarization, selection and ordering, description and interpretation.

Familiarization

This stage involved gaining a thorough knowledge of the data accumulated. This was done by first watching each of the six video-taped focus group interviews without pausing so that a good sense of the interview in its entirety could be gained, including its themes and dynamics, as is outlined in Jones (1985). Notes made immediately after each of the interviews were also re-read as part of the familiarization process.

Selection and Ordering

In this second stage the concepts, issues and themes relevant to the research objectives were selected and arranged. "It involves the sorting out within the data, of

patterns, connections, typologies and processes" (Hyatt 1986, 38). In this stage of the analysis each of the six video recordings was watched several times by the researcher, as is detailed below.

Prior to the commencement of the focus group interview stage of the project, eleven sub themes relevant to enablers and barriers to competency development were identified from the questionnaire survey data. These initial sub themes were used in order to provide some structure and make sense of the focus group data. Six of these sub-themes were relevant to barriers to competency development and five relevant to enablers of competency development. The researcher started the selection and ordering stage of the qualitative data analysis by watching the video recording of the first of the focus group interviews for a second time. Whenever a statement was made in the interview that was relevant to enablers of or barriers to competency development, the researcher recorded the statement under a relevant theme. Relevant quotations from participants were also recorded in a similar way at this stage. As the video-taped interview was watched, the researcher remained sensitive to the issues being raised by participants, adding or modifying themes as necessary. During the course of watching the recording of the first focus group interview, for example, the issue of workload began to emerge as a barrier to competency development and so this was added, bringing the total number of themes after listening to the first recorded interview to twelve. This process of watching the recordings and pausing to record significant statements under appropriate themes, while remaining sensitive to issues raised, was repeated for each of the six interviews recorded. Whenever a theme was added or modified, all of the preceding tapes were listened to again so that information relevant to that theme could be accurately recorded.

Description

Descriptions of what each group said in relation to the themes identified were recorded and the frequency with which themes emerged across the six focus groups was noted. Miles, Huberman and Saldana (2014) contend that recording frequency of themes can help the researcher to remain analytically honest, although it is important to recognize that frequency is not necessarily synonymous with importance as it is possible that a key insight might only be discussed in one group. These authors make it clear, however, that, "… the hallmark of qualitative research is that it goes beyond *how much* there is of something, to tell us about its essential *qualities" (p.182).* In light of the small size of the focus groups, comprising two or three participants, and in

the interest of ensuring focus on the essential qualities emerging from the group discussions, frequencies, such as how many people within each group mentioned a theme, were not recorded. Such an approach is supported by Krueger and Casey (2009) who note the importance of ensuring that qualitative analysis is practical and suited to the research plan and that data is not subject to over analysis.

At this stage of the process the researcher consulted an experienced qualitative researcher, taking on board ideas relevant to the combination and clarification of some themes and the identification of broad overarching themes relevant to both barriers to and enablers of competency development. As a result of this process, a final list of seventeen themes – ten barriers and seven enablers were agreed upon, and five over-arching themes were identified. The five over-arching themes were considered important as they identified issues relevant both to barriers to competency development and to enablers of that development.

Also, at this stage, the experienced researcher, who had acted as the second moderator during the interviews, carried out a reliability check on the data. This researcher randomly selected and watched two of the six focus group interviews, recording the themes identified in the interviews onto checklists. A comparison of themes identified by the two researchers was then carried out. This reliability check procedure revealed agreement on rating 15 of the 17 themes for each of the two focus group interviews, a reliability rate of 88%.

Interpretation

In the final stage of the data analysis process, links to the literature were identified and implications drawn. These are presented in the Results section below.

Safeguarding against Researcher Bias

Because both moderators were a part of the programme teaching team, it is important to summarise the wide range of measures put in place throughout the duration of the study that helped to guard against bias and thereby ensure its rigour. Permission was granted by the Ethics Committee of the University of Canterbury to conduct the study and ethics procedures were carefully adhered to throughout the study. Priority was given to ensuring that as high a response rate as possible was achieved and selecting the methodology best suited to answering the research questions. Focus groups were included because they, "…decenter the role of the researcher… allowing participants more ownership over it (Kamberelis and Dimitriadis (2001, 560)." Efforts were made to ensure the reliability of the focus group interview procedure. Prior to conducting

the interviews, for example, emphasis was placed on ensuring that the purpose of the study was clearly understood by participants. In addition, techniques were employed during the course of interviews to ensure that participants' perspectives were accurately captured, such as reflecting back to participants what had been said so that the accuracy of information could be confirmed. Once data was collected, care was taken to ensure that appropriate methods of analyzing that data were used, in particular, consultation with an experienced qualitative researcher who was not involved in the study up to this point (Author 3). This consultation resulted in the identification of five-overarching themes relevant to both barriers to competency development and enablers of that development. Also, a reliability check of the qualitative data analysis was carried out, as noted above.

RESULTS AND DISCUSSION

Findings from the focus group interviews indicated that enablers of and barriers to competency development were related to five overarching themes, focusing on: course content, relevance, structure and clarity; support networks; managing time and stress; pre-requisite knowledge, skills and experiences; and, access to technology. Findings relevant to each of the five overarching themes are discussed below.

Overarching Theme One: Course Content, Relevance, Clarity and Structure

Course content and relevance

Although participants identified some content gaps, they reported that the high quality of the course content and materials was a factor that enabled the development of competencies. This was reported in all six focus groups. Participants highlighted the relevance, scope and up-to-date nature of materials as well as the numerous links to further information as important in competency development. These findings are supported in the literature, with some authors pointing to the ease with which curriculum materials can be added to and kept updated as a significant advantage afforded by the e-learning platform (Smith and Tyler 2011). This satisfaction with course materials was emphasized by one participant who commented, "…I can honestly hand on heart say that there wasn't one thing that wasn't relevant to my job…I enjoyed engaging with it."

Course clarity

In five out of the six focus groups participants considered that a lack of clarity concerning some course issues acted as a barrier to competency development. This

lack of clarity related both to unclear assignment expectations and to unclear course engagement expectations. Participants noted, for example, that although they were encouraged to engage with materials, peers and tutors online, the level of online engagement required in order to adequately fulfill course requirements was not clearly specified. The finding of a lack of clarity acting as a potential barrier to the competency development of learners in an e-learning context has been noted in the literature (Gruenbaum 2010; Merriam and Bierema 2014).

Course structure

Participants considered that a number of issues relevant to course structure and organization had been factors that acted as barriers to their competency development. These included, for example, the concurrent teaching of the two first year courses, which required navigating a complex website. Participants reported feeling pressure and confusion, as they had to quickly transfer their attention from one course site to the other while dealing with their heavy workloads. Participants also noted issues with navigating large and complex discussion forums and course content domains that made it difficult and time consuming for them to quickly retrieve important information.

That participants considered course structure issues to be barriers to competency development is a finding supported by previous literature. For example, it is noted that when learners new to e-learning are faced with a situation in which every aspect of the practice and technology of e-learning is new to them, such learners experience a very steep learning curve that may create barriers to learning (Haythornthwaite and Andrews 2011; Merriam and Bierema 2014). In addition, Garrison (2011) cautions that if the quantity of materials to be assimilated is excessive for students, their approach to learning will result in surface rather than deep learning, thus compromising their progress and development.

Although participants experienced course structures and organization that presented barriers to competency development, findings were that other aspects of the course, such as access to flexible online learning options, as well as relevant and useful assignments and feedback, were considered to be enablers of competency development. These are discussed below.

In all six focus groups participants identified the flexible nature of the programme as a factor that supported their competency development. The advantages to adult learners of flexible online learning and communication, that is not bound by

time or space, are well documented in the literature (Haythornthwaite and Andrews 2011; Merriam and Bierema, 2014).

Participants in the current study considered that online accessibility allowed them to fit their study into busy working and family lives in physical locations that best suited them. One participant commented that, "I could do it although I lived rurally and was physically isolated." Participants also noted that the long term availability of the website supported on-going development with one participant commenting that she was able to revisit materials several times and "see it with a different lens each time".

Another example of progamme flexibility identified by participants as enabling competency development was the opportunity to self-direct their learning and develop individual learning goals. Participants considered that this was important in supporting them to build on prior knowledge and extend learning and competency development. These findings are in keeping with the literature on this issue which emphasizes the contribution to student learning of flexible structures and processes that encourage self-direction (Garrison 1997; Knowles, Holton, and Swanson 2015; Merriam and Bierema 2014).

Overarching Theme Two: Support Networks

Isolation

Most participants valued opportunities to engage with peers in informal face-to-face communities of learning and practice outside of their online work. They considered that where face-to-face interaction and opportunities for consolidation were not possible this was a barrier to competency development. This was the case, for example, for one participant who lived and worked in a rural area and was unable to be part of a face-to-face group because of physical distance. It is well recognized that learning is facilitated when people interact with each other (Knowles et al. 2015; Liu, Carr, and Strobel 2009; Merriam and Bierema 2014) and that conditions that allow learners to engage in learning communities provide useful opportunities for learning and development (Garrison 2011; Lave and Wenger 1991).

Feelings of isolation also occurred when there was a lack of confidence on the part of participants to engage actively in the online community, so hesitation to engage was considered a barrier to competency development (Garrison 2011; Haythornthwaite and Andrews 2011). Issues of isolation are recognized in the literature as potential impediments to learning. Such hesitation may be due to the

reduction of communication cues available to learners in online conditions, such as the absence of facial expression and tone of voice that may impede the building of trust within online learning communities. Where learners are not able to establish 'social presence' in the online community, critical thinking and learning can be compromised (Dixon 2010; Haythornthwaithe and Andrews 2011; Vaughn et al. 2013). Garrison (2011) stresses that social presence involves a participant's ability to identify with the online group and to develop personal relationships that enable them to communicate purposefully within a trusting environment and suggests that this is a key element in supporting successful learning.

Readily available and accessible supports

Participants considered readily available supports as enablers to competency development. In all six focus group interviews participants considered the support of programme peers, professional colleagues and programme instructors to be important enablers of their competency development. In addition, the support of family and of the Ministry of Education also emerged as facilitating factors in competency development.

A key finding that emerged was that the support of a small self-selected group of programme peers, who lived locally, was an important factor in competency development for many participants. For example, one participant reported that, "the value was getting all the reading from the online component and having that information there, but then having a face-to-face discussion with someone and unpacking it…".

Participants also considered that social as well as academic supports from the online community enhanced their development of competencies. One participant commented that engagement in the online community supported, "the idea that everybody else was in the same boat and that I wasn't alone". Another participant commented that reading the posts of others on the website, "helped you to understand". Participants valued being able to feel "secure" to ask questions and to exchange ideas in the online environment where they were confident they would not be ridiculed and where there was "never a dumb question".

Participants valued support from programme instructors and considered that the accessibility and responsiveness of staff to their needs supported their competency development. One participant commented on the importance of knowing that "… lecturers were always there to support online". In order for learners to benefit from

these multiple forms of support it is considered important that psychological safety is established so that participants will be willing to take risks and try new things as part of the learning process (Knowles et al. 2015; O'Neill 2008; Tomei 2010).

Support gained in the face-to-face context of block courses was considered an important facilitating factor in competency development. For example, participants reported that the block course session at the start of the programme provided opportunities for them to gain important knowledge of and support with technology. In addition, participants considered that the opportunity to meet and interact with other group members face-to-face during block course sessions was helpful in establishing supportive interpersonal connections. This contributed to participants' feelings of being a part of a supportive community of learners, enabling them to expand networks and learn effectively from, with and about peers and programme staff.

Participants acknowledged too the important role of family members in supporting their learning and competency development. One participant commented, for example that, "my husband had to learn how to cook and I had to learn how to eat it!" Other participants drew attention to the role of their children with one pointing to the support of her young son who monitored her wellbeing, commenting on one occasion, "… don't you think you'd better go out somewhere, you've been bent over the computer for a long time!" The support of the Ministry of Education in providing time and financial support for study was also identified as a contributor to competency development.

The findings of the current study, highlighting issues of support networks both on and off line as important factors in competency development, are well supported in the literature. For example, engagement and collaboration with others in a community of practice is recognized in the literature as advantageous to achieving meaningful learning (Knowles et al. 2015; Merriam and Bierema 2014). Further, it is recognized that a significant advantage offered by e-learning platforms is the opportunity provided for support in the learning process through collaboration within an online community (Garrison 2011; Yuen 2011). In fact, it is suggested that, by harnessing the potential for meaningful collaboration, the transformative power of e-learning to support the deep and effective learning of adults in higher education settings can be realized (Garrison 2011; Haythornthwaite and Andrews 2011).

Overarching Theme Three: Managing Time and Pressure

In all six focus groups participants considered the high programme workload and assignment demands to be barriers to competency development. Participants considered that these high demands resulted in superficial rather than deep learning in some areas. This potential for workload demands to compromise deep learning is highlighted by Garrison (2011). Further, participants in the current study considered that high workload demands made it difficult to balance the needs of family and work life.

Because of the nature of the programme, with its focus on training professionals who were already in teaching roles, participants were committed to fulfilling demanding professional roles alongside their study. Participants reported, for example, that time they should have allocated to study was devoted to issues at their places of work, with one participant commenting that she did not want, "to let the kids down." Another participant noted that family commitments, specifically as they related to caring for a very ill family member, presented barriers to competency development.

Findings also suggested that, in the context of the high programme workload, effective time management and organization, along with positive attitudes, were important enablers of competency development. Participants reported, for example, freeing up study time by "working smarter" and getting better at "sifting through" information on the website. In addition, study aids, like lists on the kitchen wall, along with practices like setting aside specific study times at home, all supported competency development.

Excessive programme workload can compromise learning, with students having to apply superficial rather than critical or deeper approaches to learning (Garrison 2011). In addition, Rogers (1996) highlights the particular stresses to which adults are subjected because of their competing interests. Very often, for example, education is not the prime concern of adults and their learning can be, "overshadowed by the 'realities' of life" (Rogers 1996, 69).

The pressure on adult learners to balance competing roles may be exacerbated in e-learning contexts because of the permeation of the internet into all spaces, including home and work spaces (Merriam and Bierema 2014). Researchers point out that, whereas a student in a lecture can be clearly identified as being involved in a study situation, the signal may be much more difficult for a family member to distinguish when the learner is operating in an 'invisible' e-space within the home

context. This difficulty, in establishing clearly demarcated boundaries in the face of widespread online access, may result in conflicts as learners attempt to pay attention simultaneously to study as well as to juggling home and work demands (Haythornthwaite and Andrews 2011). Findings from the literature and the current study suggest that, in negotiating these conflicts, learners need to use effective organizational skills in order to set their own boundaries, which may be more difficult in predominantly online courses.

Overarching Theme Four: Pre-requisite Knowledge, Skills and Experience

Results of the focus group data analysis suggest that a lack of pre-requisite knowledge, skills and experience in some areas were clearly considered barriers to competency development. Participants considered that, for example, unfamiliarity with the expectations of post-graduate study, not knowing what course content to select, lack of skills and knowledge relevant to the specialist teaching role, lack of knowledge of course materials, and, inadequate knowledge and experience with the technology involved with e-learning, all presented barriers to competency development. On the other hand, having pre-requisite knowledge, skills and experience, for example, in the areas of technology and online learning, were considered enabling factors in competency development.

Most participants in the current study reported not having engaged in university education for many years, some for as long as 30 years. They considered that this lengthy time away from formal academic study resulted in a lack of knowledge of, and uncertainty about, the expectations of academic study at the post-graduate level. They reported a big gap between the skills that they needed when they were at university years earlier and the skills that were required in the Specialist Teaching Programme. Participants considered that not knowing what course content to select in working towards personalized goals made self-direction of their learning difficult and was a barrier to progress. As one participant put it, “I didn’t know what I didn’t know.” These difficulties in adjusting to the demands of the formal learning situation for some adult learners have been recognized in the literature. (Brocket and Hiemstra 1991; Garrison, 2011; Knowles et al. 2015; Rogers, 1996; Tomei, 2010).

With the rapid advancements in technological tools used within the e-learning context it is also not surprising that some participants considered challenges with technology to be a barrier to competency development. As discussed earlier, the learning curve experienced by learners new to the e-learning environment is steep and

there is a danger of technology becoming a barrier to learning rather than an enabler in the learning process. Haythornthwaite and Andrews (2011, 142), assert that there needs to be, "… an active process of continuously balancing the social and the technical in the service of learning".

Many participants in the current study reported feeling "inept" in the face of the technological demands of the programme. While some participants considered that technology was only a barrier during the initial stages of the programme, others considered it a more enduring issue, with one participant commenting that technology was a "massive" barrier to competency enablement. Participants reported that they valued opportunities during the face-to-face section of the blended learning programme to seek hands-on support from tutors and peers with issues related to technology.

Overarching Theme five: Access to Technology

It is not surprising that, while unimpeded access acted as an enabler of competency development, impeded access to technology sometimes acted as a barrier. In two focus groups participants considered that disruptions to their office space, resulting in a lack of internet access and unavailability of photocopying facilities, was a barrier to competency development. Others considered that not having mobile phone access to the internet restricted their ability to communicate with the online community and utilize study time fully in the context of a busy family, for example, while waiting for children engaged in extra-curricular activities.

On the other hand, participants reported that gaining access to high speed internet, rather than relying on a dial-up service, was an enabler of competency development. In addition, participants noted that the availability of portable devices, such as a tablet PC, on which documents could be saved, reduced the need for internet access and photocopies of resources. They reported that this increased flexibility and enabled competency development.

In the context of a rapidly developing technological society, where access to technology becomes compromised, exclusion from learning opportunities exists. Conversely access to technology, high speed internet and up-to-date and portable devices are advantageous to learning and development (Haythornthwaite and Andrews 2011; Merriam and Bierema 2014).

Implications for Practice

Implications for the delivery of this specialist teaching programme are addressed in Author One. et al. 2016. Implications for practice arising from analysis of the focus group data reported in this article relate to factors that acted as barriers to, or enablers of, competency development. The findings reported here highlight issues relevant to programme developers and teacher educators.

Participants were able to offer recommendations for adding depth and breadth to programme content in some areas that they considered would have further facilitated their competency development. For example, participants suggested further emphasis on recent government initiatives, as well as on assessment, and functional behavior assessment. They also considered that further materials relevant to Pasifika learners would have been helpful in competency development.

It was suggested that programme developers should also put emphasis on ensuring that key information is clearly highlighted in e-learning contexts and recognize that clear specification, for example about the levels of online engagement required and assignment expectations, may be an important factor in supporting competency development.

Participants considered that the heavy workload required by the programme was a barrier to competency development. This perception was pervasive among participants and was particularly acute when participants were new to the demands and structures of online learning. The high programme workload was reported to be exacerbated by participants' lack of prior knowledge, partly due to many of these adults having not having engaged in formal academic study for considerable lengths of time. This underlines the importance of employing effective planning and pedagogical practices, as well as the need for teacher educators to be reflective as they guide students in meeting the challenging demands of learning in new blended learning spaces.

Establishing and maintaining various support networks, emerged as an important factor in competency enablement, with participants highly valuing the support of peers and colleagues in addition to support from programme staff. In particular, participants valued opportunities to meet regularly face-to-face in small, self-selected groups with programme peers. With this in mind, it may be useful for programme coordinators to consider how they might support and encourage new students to identify peers with whom they might be able to work in face-to-face, small group situations on a regular basis.

Limitations

Several limitations with regard to the current study are acknowledged. These relate to aspects of its design implementation, research procedures and measures. These limitations are discussed in the following paragraphs.

Focus group interviews took some time to organize and were finally conducted between eight and 11 months after the programme was completed. Efforts were made to stimulate memories of participants' experiences, for example, by providing lists of competencies to participants prior to the interview and holding pre-interview warm-up conversations with focus groups before starting the interviews. Despite this, however, the time delay in conducting these interviews and the possibility that participants' memories had faded, may have impacted on the reliability or validity of the data collected.

The sequential design, with participants' selection for the interview phase based on the results of the questionnaire survey, also meant that anonymity could not be offered to those participating in the study. Although participants were made aware of the purpose of the study (to improve the programme for future professionals) the lack of anonymity at this stage of the study may have influenced some participants to respond in more socially favourable ways, despite the fact that great care was taken to assure participants of confidentiality and word questions in such a way as to avoid them feeling professionally vulnerable.

Eighty-one students successfully completed the programme. Despite the best efforts of the researcher, however, questionnaire data was only received from 42 of these ex-students. Although some authors suggest that researchers should be satisfied with a 50 per cent response rate for such surveys (Cohen et al. 2011) it is possible that, with a response rate of only 52 per cent, the data gathered may not be representative of the views of the entire population of ex-students.

In addition, it is important to acknowledge that, due to the difficulties of scheduling focus group interviews at times and in places that suited participants, focus group sizes were small. Four focus groups comprised three participants each and two focus groups comprised two participants each. In total, therefore, only 16 of the 42 participants who completed the survey questionnaire took part in focus group interviews. Although small focus groups lend themselves to the possibility of producing more detailed data from each participant, there is also the possibility that they could result in a more limited range of issues being raised (Morgan 1997). The

small size of the focus groups and the fact that only 16 out of the 42 graduates were involved may, therefore, have impacted the richness of the data collected.

Conclusion

Experienced teachers who successfully completed an innovative blended learning specialist teaching postgraduate programme identified a range of barriers to and enablers of competency development. Within the context of an international trend towards making use of blended learning designs to provide flexible and effective learning options, the role of blended learning programmes in preparing teachers for working with students and schools is promising. It is intended that, through addressing the barriers to competency development identified by participants and by focusing on enabling factors in competency development, future programmes can be further strengthened. This will increase the quality of teacher education for specialist teachers and lead to improvements in outcomes for students with learning and behavioural difficulties.

References

Brockett, R. G., and R. Hiemstra 1991. *Self-Direction in Adult Learning: Perspectives on Theory, Research and Practice.* New York, NY: Routledge.

Cohen, L., L. Manion, and K. Morrison. 2011. *Research Methods in Education.* 7th ed. Abingdon: Routledge.

Conderman, G., S. Johnston-Rodriguez, P. Hartman, and D. Walker. 2013. "Honoring Voices from Beginning Special Educators for Making Changes in Teacher Preparation." *Teacher Education and Special Education* 36 (1): 65-76.

Dixon, M. D. 2010. "Creating Effective Student Engagement in Online Courses: What do Students Find Engaging?" *Journal of the Scholarship of Teaching*

and Learning 10 (2): 1-13.

Fishman, B., S. Konstantopoulos, B.W. Kubitskey, R. Vath, G. Park, H. Johnson, and D. C. Edelson. 2013. "Comparing the Impact of Online and Face-to-Face Professional Development in the Context of Curriculum Implementation." *Journal of Teacher Education* 64 (5): 426-438.

Garrison, D. R. 1997. "Self-Directed Learning: Toward a Comprehensive Model." *Adult Education Quarterly* 48 (1): 18-33.

Garrison, D. R. 2011. *E-Learning in the Twenty-First Century: A Framework for Research and Practice.* 2nd ed. New York, NY: Routledge.

Garrison, D. R. and N. D. Vaughn. 2008. *Blended Learning in Higher Education: Framework, Principles, and Guidelines*. 1st ed. San Francisco, CA: Jossey-Bass.

Gruenbaum, E. A. 2010. "Predictors of Success for Adult Online Learners: A Review of the Literature." *E-Learn Magazine*. http://elearnmag.acm.org/featured.cfm?aid=1722023

Haythornthwaite, C., and R. Andrews. 2011. *E-Learning Theory & Practice.* London: SAGE.

Heller, K. W., M. K Dykes, S. Best, and E. T. Cohen, (1999). "A National Perspective of Competencies for Teachers of Individuals with Physical and Health Disabilities". *Exceptional Children* 65 (2): 219-234.

Hyatt, J. 1986. "Analysis of Qualitative Data." In *Advanced Workshop in Applied Qualitative Research,* edited by J. Ritchie and W. Sykes, 32-39. London: Social and Community Planning Research.

Jones, S. 1985. "The Analysis of Depth Interviews". In *Applied Qualitative Research*, edited by R. Walker, 56-70. Aldershot: Gower.

Merriam, S. B., and L. L. Bierema. 2014. *Adult Learning: Linking Theory and Practice*. San Francisco, CA: Jossey-Bass.

Kamberelis, G., and G. Dimitriadis. 2011. "Focus Groups: Contingent Articulations of Pedagogy, Politics, and Inquiry." In *The Sage Handbook of Qualitative Research.* 4th ed. edited by N. K. Denzin, and Y. S. Lincoln, 545-561. Thousand Oaks, CA: SAGE.

Knowles, M. S., E. F. Holton, and R. A. Swanson. 2015. *The Adult Learner: The Definitive Classic in Adult Education and Human Resource Development.* 8th ed. London: Routledge.

Krueger, R. A., and M. A. Casey. 2009. *Focus Groups: A Practical Guide for Applied Research.* 4th ed. Thousand Oaks, CA: SAGE.

Laurillard, D. 2002 (ed.). *Rethinking University Teaching: A Conversational Framework for the Effective use of Learning Technologies.* 2nd ed. London: Routledge.

Lave, J., and E. Wenger. 1991. *Situated Learning. Legitimate Peripheral Participation.* Cambridge: University of Cambridge Press.

Liu, W., R. L. Carr, and J. Strobel. 2009. "Extending Teacher Professional Development through an Online Community: A Case Study." *Journal of Educational Technology Development and Exchange* 2 (1): 99-112.

Lombardi, T., and N. Hunka. 2001. "Preparing General Education Teachers for Inclusive Classrooms: Assessing the Process." *Teacher Education and Special Education* 24 (3): 183-197.

Miles, M. B., A. M. Huberman, and J. Saldana. 2014. *Qualitative Data Analysis: A Methods Sourcebook.* 3rd ed. Thousand Oaks, CA: SAGE.

Morgan, D. L. 1997. *Focus Groups as Qualitative Research.* 2nd ed. Thousand Oaks, CA: SAGE.

O'Neill, J. 2008. "Putting Teacher Learning in Context." In *Talk About Learning: Working Alongside Teachers,* edited by R. Bourke, A. Lawrence, A. McGee, J. O'Neill, and J. Curzon, 27-38. Auckland: Pearson Education.

Perakyla, A., and J. Ruusuvuori. 2011. "Analyzing Talk and Text." In *The Sage Handbook of Qualitative Research.* 4th ed. edited by N. K. Denzin, and Y. S. Lincoln, 529-543. Thousand Oaks, CA: SAGE.

Pilgrim, M. 2016. *Competencies in the Training of Resource Teachers Learning and Behaviour: An Evaluation*. Unpublished Doctoral Thesis, University of Canterbury, Christchurch, New Zealand.

Pilgrim, M., G. Hornby, J. Everatt, and A. Macfarlane. 2017. "Evaluation of an Innovative Programme for Training Teachers of Children with Learning and Behavioral Difficulties in New Zealand". *Educational Review, 67*(3), 337-348. http://dx.doi.org/10.1080/00131911.2016.1218443

Rakap, S., H. A. Jones, and A. K. Emery. 2014. "Evaluation of a Web-Based Professional Development Programme (project ACE) for Teachers of Children with Autism Spectrum Disorders." *Teacher Education and Special Education* 38 (3): 221-239.

Rogers, A. 1996. *Teaching Adults.* 2nd ed. Buckingham: Open University Press.

Smith, D. D., and N. C. Tyler. 2011. "Effective Inclusive Education: Equipping Education Professionals with Necessary Skills and Knowledge." *Prospects* 41: 323-339.

Thompson, J. R., P. H. Klass, and B. M. Fulk. 2012. "Comparing Online and Face-to-Face Presentation of Course Content in an Introductory Special Education Course." *Teacher Education and Special Education* 35 (3): 228-242.

Tomei, L. A. 2010. *Designing Instruction for the Traditional, Adult, and Distance Learner: A New Engine for Technology-Based Teaching.* Hershey, PA: Information Science Reference.

Vaughn, N. 2007. "Perspectives on Blended Learning in Higher Education". *International Journal on E-Learning* 6 (1): 81-94.

Vaughan, N. D., M. Cleveland-Innes, and D. R. Garrison. 2013. *Teaching in Blended Learning Environments: Creating and Sustaining Communities of Inquiry*. Edmonton: AU Press.

Vernon-Dotson, L. J., L. O. Floyd, C. Dukes, and S. M. Darling. 2014. "Course Delivery: Keystones of Effective Special Education Teacher Preparation." *Teacher Education and Special Education* 37 (1): 34-50.

Yuen, A. H. K. 2011. "Exploring Teaching Approaches in Blended Learning." *Research and Practice in Technology Enhanced Learning* 6 (1): 3-23.